Cotton/Soybean Insect Newsletter

Volume 17, Issue #4 Edisto Research & Education Center in Blackville, SC 26 May 2022

Pest Patrol Alerts

Some of the information contained herein each issue is available via text alerts that direct users to online recordings. I will update the short message often for at least as long as the newsletter runs. After a new message is posted, a text message is sent to alert users that I have recorded a new update. Users can subscribe for text message alerts for my updates in two easy steps. Step one: register by texting **pestpat7** to 97063. Step two: reply to the confirmation text you receive by texting the letter "y" to complete your registration. Pest Patrol Alerts are sponsored by Syngenta.

Updates on Twitter

When noteworthy events happen the in the field, I will be sending them out quickly via Twitter. If you want to follow those quick updates, follow me at **@bugdocisin** on Twitter.

News from Around the State

Jay Crouch, county agent in Newberry County, reported, "Nothing much on the insect front this week, but we are getting some desperately needed rain." **Jonathan Croft** and **Hannah Mikell**, county agents in Orangeburg and Clarendon Counties, respectively, also reported not seeing any insect issues but much needed rain in their areas.

Cotton Situation

As of 22 May 2022, the USDA NASS South Carolina Statistical Office estimated that about 65% of the crop has been planted by this week, compared with 48% planted the previous week, 71% at this time last year, and 64% for the 5-year average. The conditions of the crop were 0% excellent, 24% good, 76% fair, 0% poor, and 0% very poor. These are reported statewide averages.

Cotton Insects

The next 5 pages contain recent photos from my plots addressing at-plant options for thrips. These were taken at about a month after planting, and, by each treatment, I have a photo from a completely untreated plot for comparison. I put an ink pen by plants in every photo and attempted to make the ink pen the same size in each picture to give the best comparison relative to untreated cotton. In the trial, we have non-Thryvon and Thryvon cotton, each untreated and treated with one of the following: a foliar spray of acephate (Orthene 97) at 3 oz/acre at 1 to 2 true leaves, a commercial seed treatment of imidacloprid (Gaucho), an in-furrow spray of imidacloprid (Admire Pro) at 9.2 fl oz/acre, or an in-furrow granular application of aldicarb (AgLogic) at 5 lb/acre.

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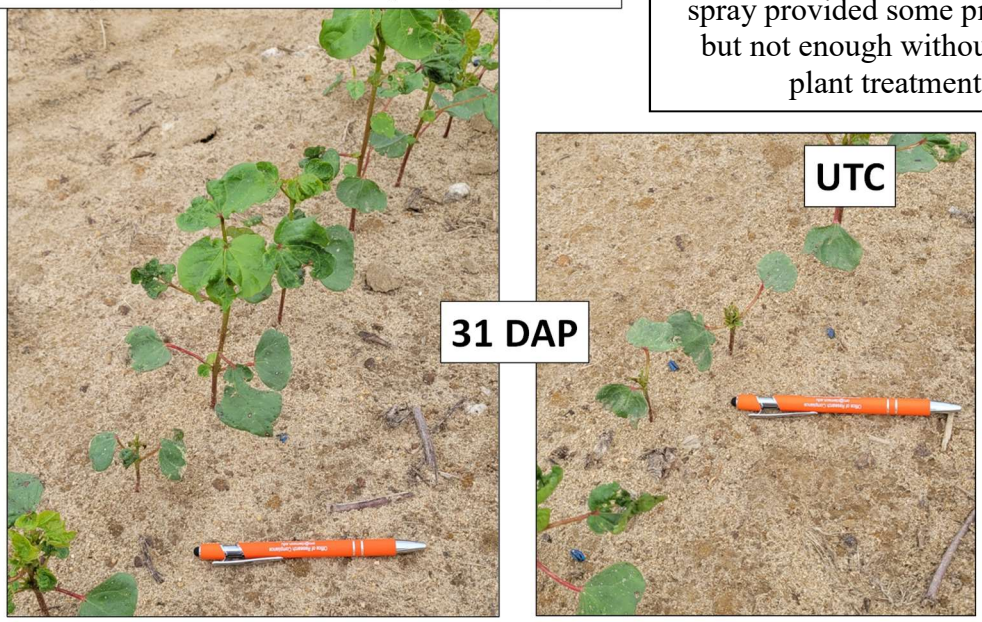
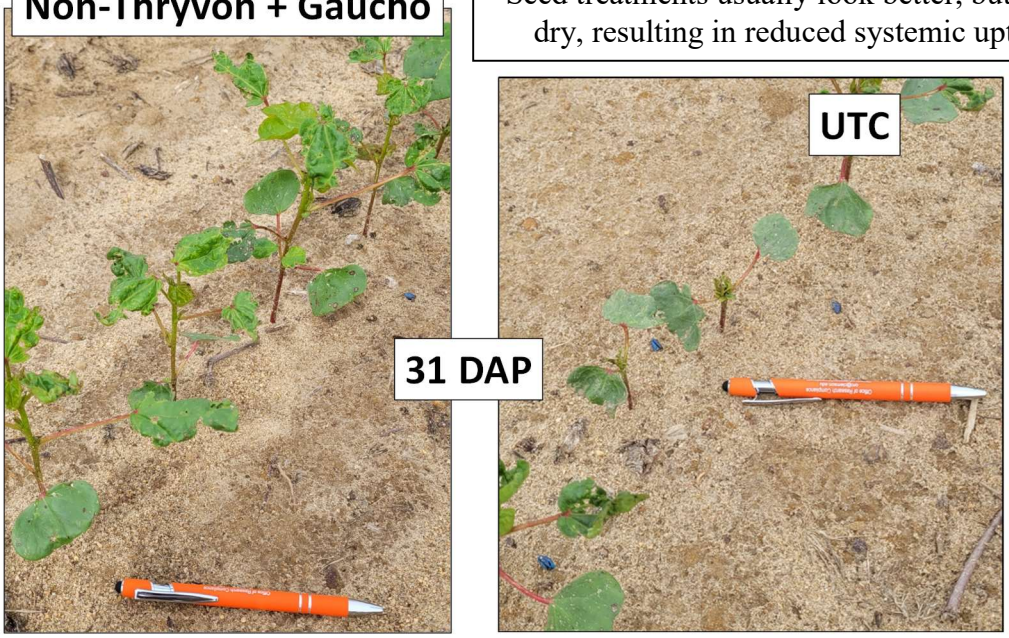
Non-Thryvon + Orthene spray 3 oz/ac

On non-Thryvon cotton, the foliar spray provided some protection but not enough without an at-plant treatment.



Non-Thryvon + Gaucho

Seed treatments usually look better, but it was dry, resulting in reduced systemic uptake.



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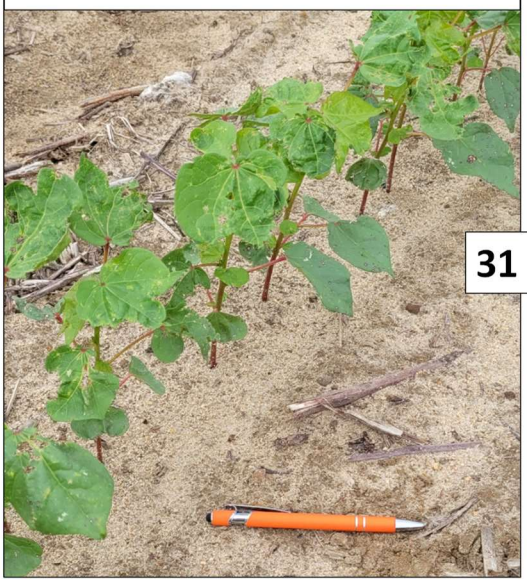
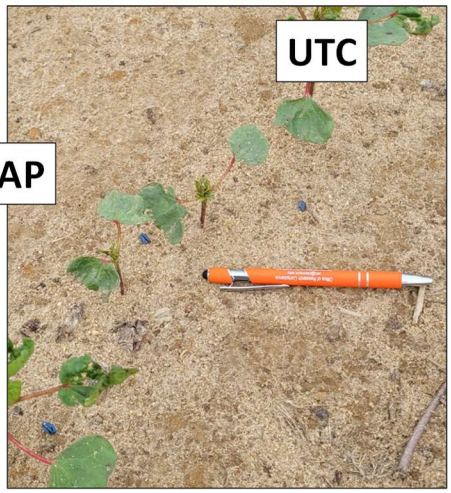
Non-Thryvon + Admire Pro 9.2 fl oz/ac

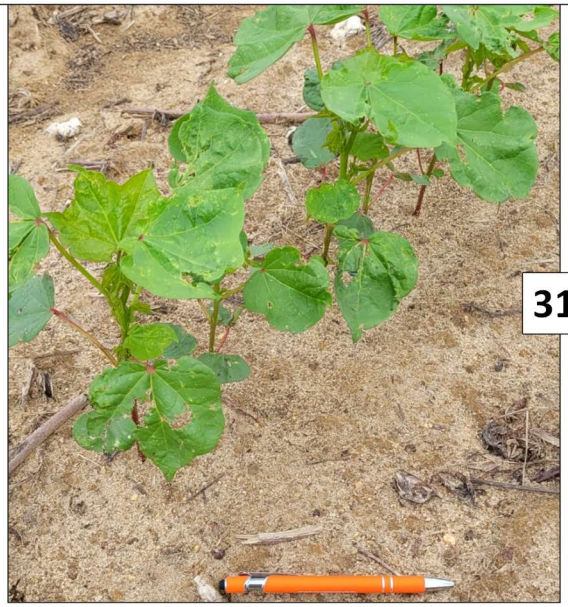


Often, imidacloprid sprayed in the furrow looks a little better than when delivered as a seed treatment. There was some injury from thrips, but it was tolerable.

31 DAP

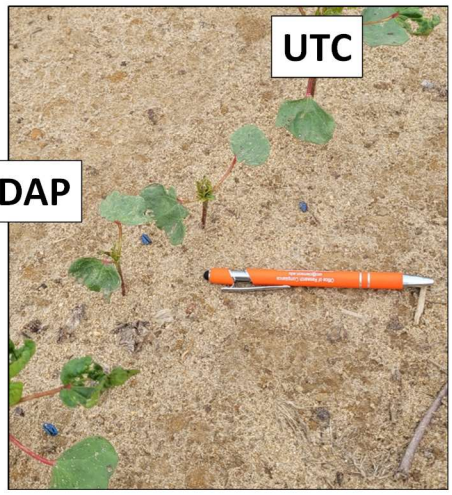


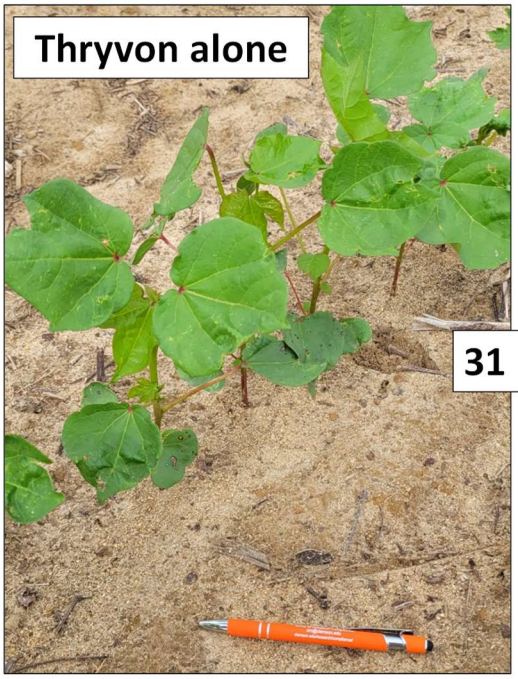
Non-Thryvon + AgLogic 5 lb/ac



On non-Thryvon cotton, aldicarb used in the furrow provided very good control of thrips.

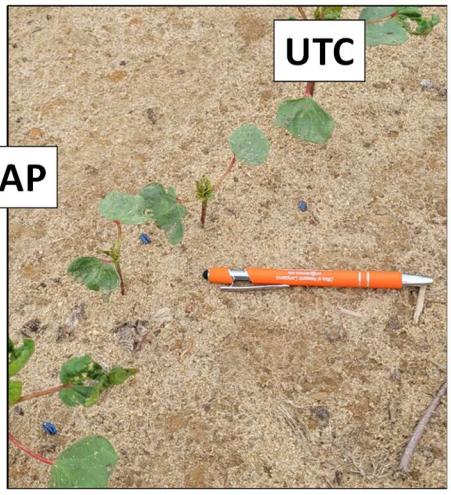
31 DAP



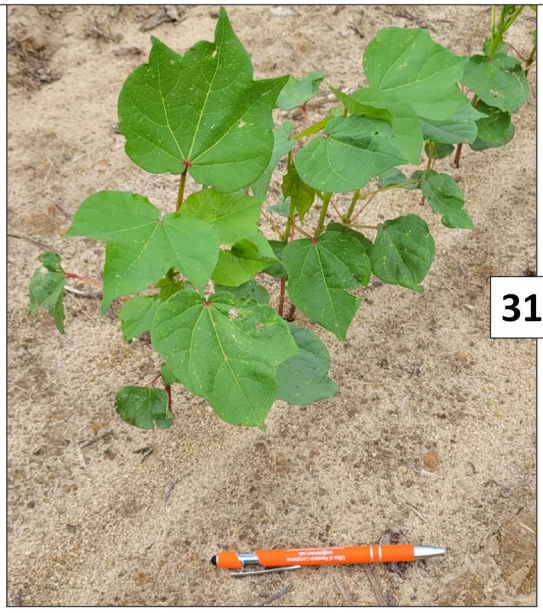


Thryvon technology alone looked pretty good and appears to be one of the best treatments in the trial.

31 DAP

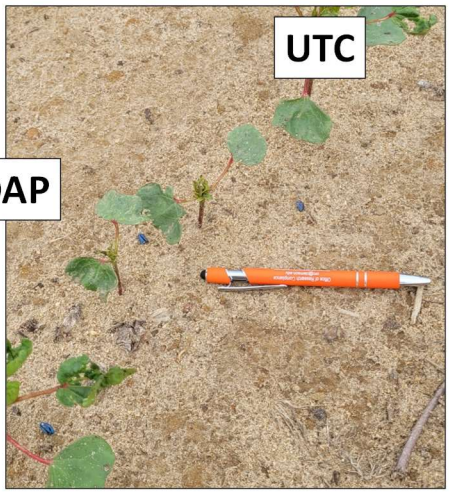


Thryvon + Orthene spray 3 oz/ac



Thryvon technology sprayed once with acephate benefited minimally from the application, at least in the short-term.

31 DAP



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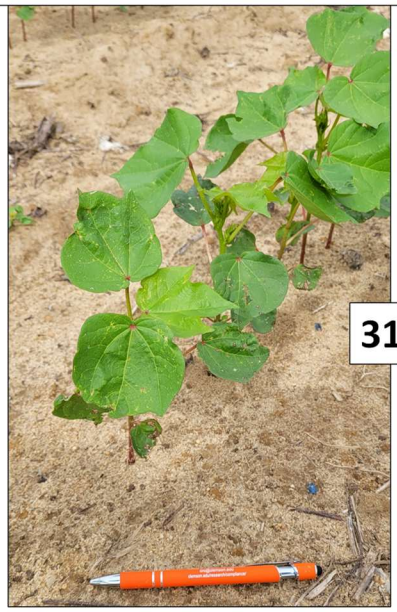
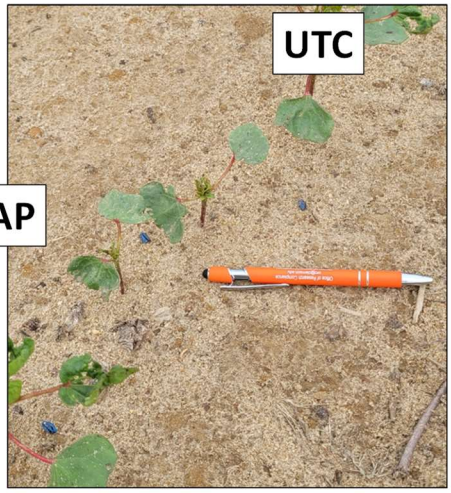
Thryvon + Gaucho

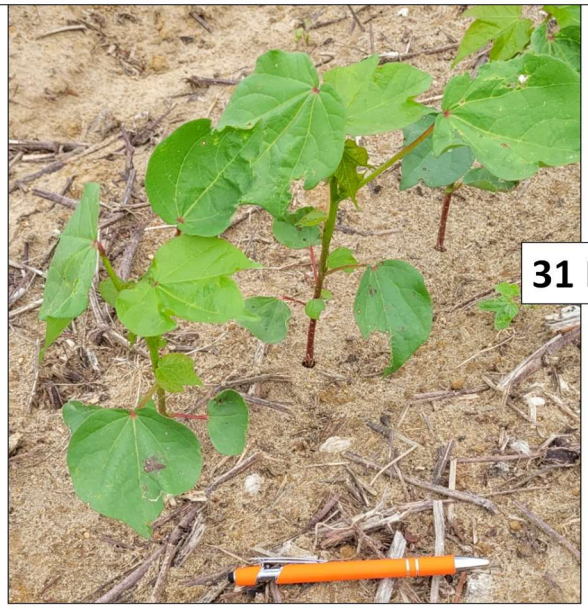


Thryvon technology paired with an insecticide seed treatment benefited minimally from the seed treatment, at least in the short-term visually.

31 DAP



Thryvon + Admire Pro 9.2 fl oz/ac



Thryvon technology with an IFS of imidacloprid benefited minimally from the application, at least in the short-term.

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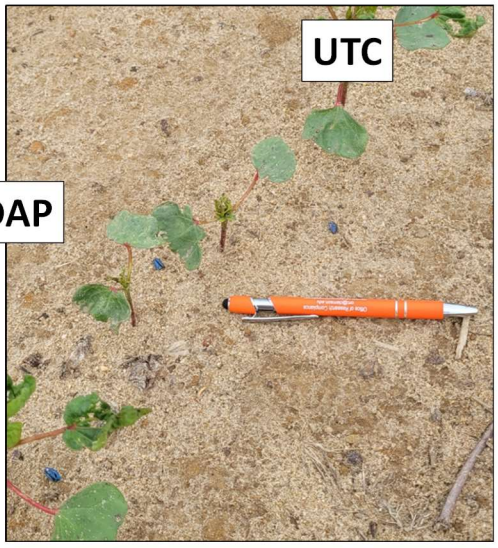
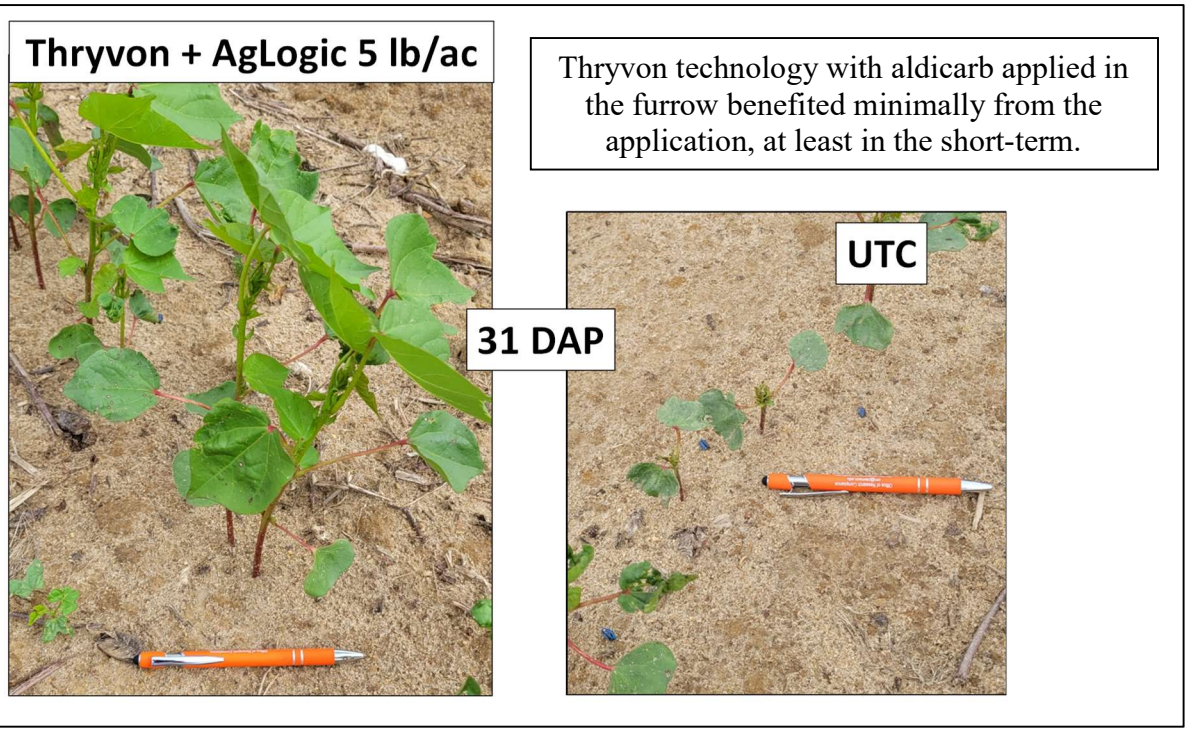
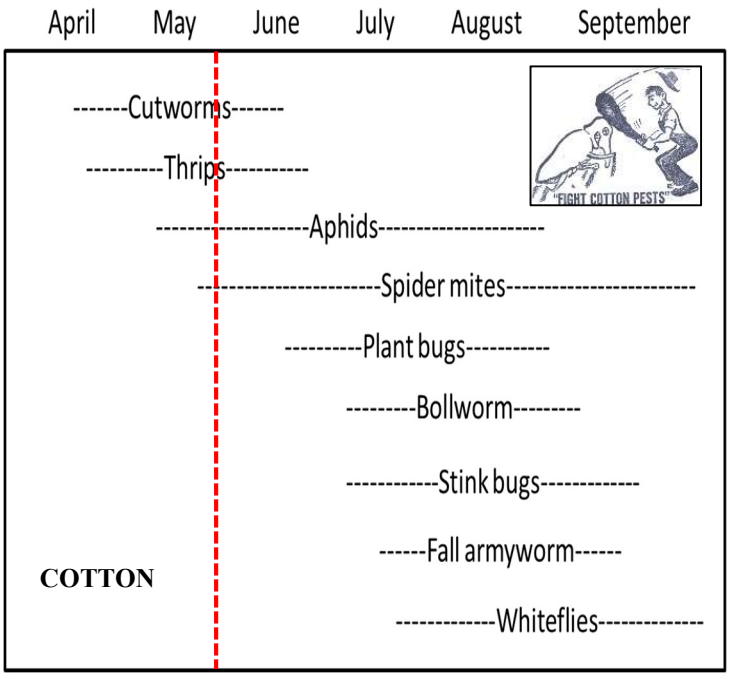




So, the big takeaway for me so far in these comparisons of Thryvon and non-Thyrvon cotton with and without additional insecticides for thrips is that the new Thryvon technology appears to be just fine on its own against thrips. HOWEVER, this technology will most likely not be sold without the seed being commercially treated with something like imidacloprid or imidacloprid + thiodicarb. This will be to protect the trait from thrips developing resistance. It remains to be known for what price the technology will sold, but, when paired with the seed treatment, the costs might be expensive. What is certain is that producers will soon have an additional option for controlling thrips, after final global approval. Furthermore, don't forget that the Thryvon technology also controls plant bugs and will significantly reduce any losses to those pests here in the Southeast, although that benefit is minimal for us in South Carolina, Georgia, etc.



Soybean Situation

As of 22 May 2022, the USDA NASS South Carolina Statistical Office estimated that about 39% of the crop has been planted this week, compared with 29% planted the previous week, 58% at this time last year, and 36% for the 5-year average. About 11% of the crop has emerged, compared with 2% the previous week, 39% at this time last year, and 20% for the 5-year average. The conditions of the crop (have yet to be reported) were --% excellent, --% good, --% fair, --% poor, and --% very poor. These are reported statewide averages.

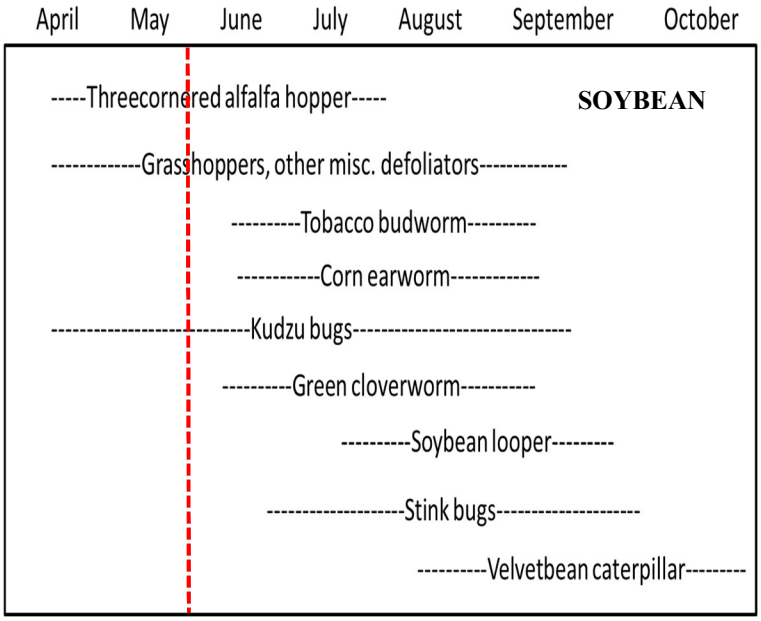
From the SC Soybean Specialist (Dr. Michael Plumblee)

"Soybean planting continues, and we appear to be on track with our 5-year average. Several parts of the state were fortunate enough to get much-needed rain over the weekend and earlier this week. Hopefully, we can catch more rain this coming weekend to ensure adequate soil moisture for good germination, emergence, and PRE herbicide activation. As soybean begins to emerge, it is a good time to refresh on how to define different soybean growth stages. Often, several of our recommendations for fungicide, insecticide, and irrigation applications are based on specific soybean growth stages. To help understand and determine soybean growth stage in determinate (MG 5-8) and indeterminate (MG 00-4) soybean, we have put together a "Visual Guide to Soybean Growth Stages" that includes example pictures of each growth stage at this link: https://lgpress.clemson.edu/publication/visual-guide-to-soybean-growth-stages/

As we continue planting and progress through early vegetative growth continue scouting, don't get behind on herbicide applications, and don't overlook the value of a soil or tissue sample if problem areas begin to arise."

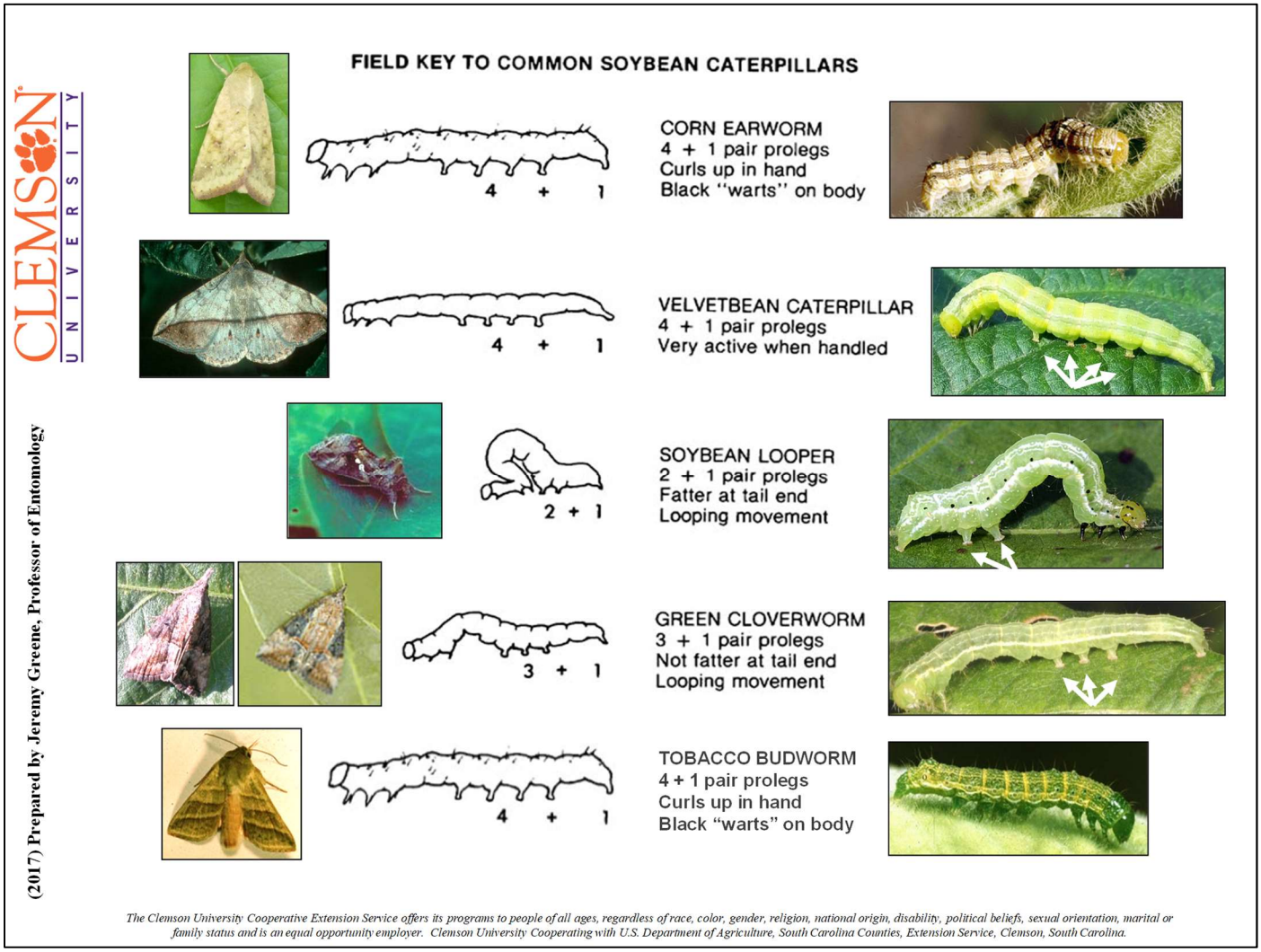
Soybean Insects

Again this week, most of the soybeans are seedlings or have yet to be planted. We still do not have any widespread issues with insects in soybeans, but we have already observed kudzu bugs and threecornered alfalfa hoppers in the field. As stated last week, problems with grasshoppers and deer will be the first issues to deal with regarding herbivores in soybeans. I recommend a heavy rate of a pyrethroid mixed with Dimilin (2 fl oz/acre) as the best treatment for them at this time of year. The soap-based repellents and aldicarb used at planting can help repel deer, if you are not going to give them the permitted high-speed lead treatment.



The figure below is for much later in the season, but it stays here as a reminder to learn how to identify larvae and adults (moths).

As moth activity increases, deposited eggs will yield caterpillar pests on soybeans. It is good skill to be able to identify adult moths flying around in fields. Use this chart to study moth and caterpillar identification.



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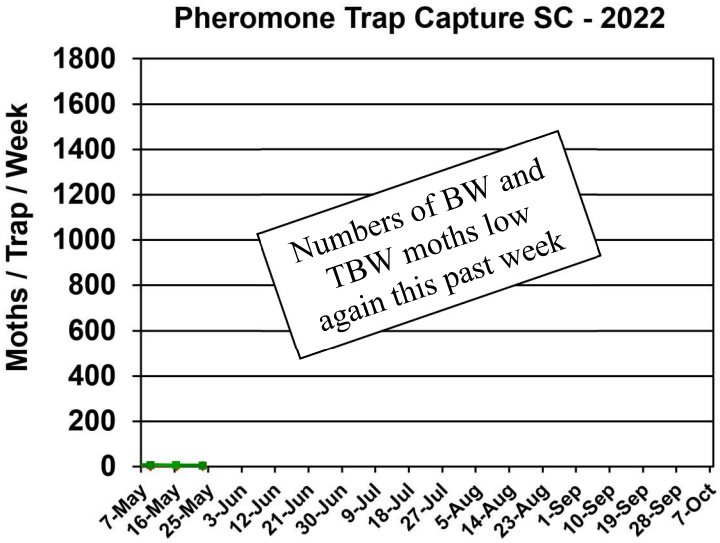
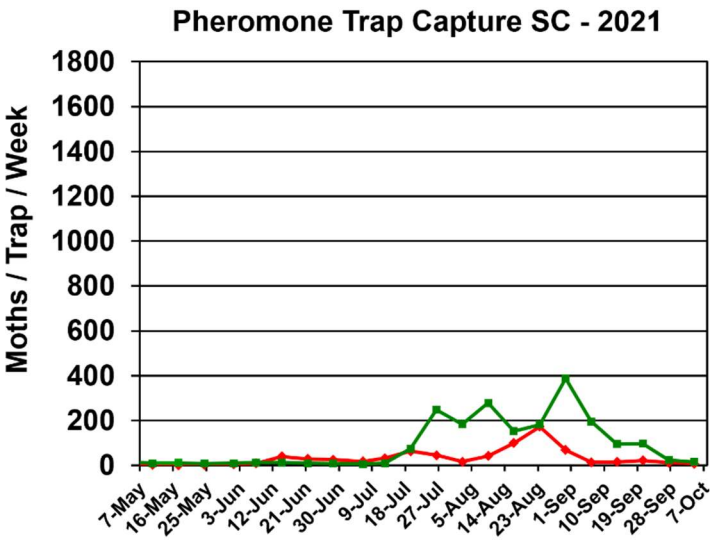
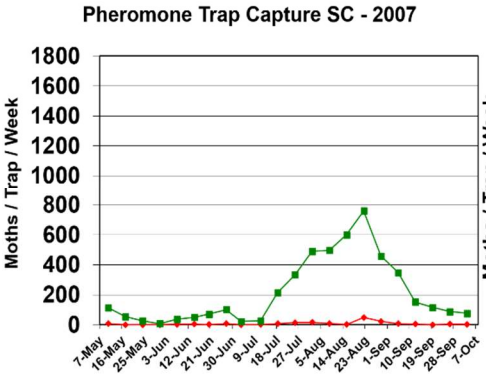
Bollworm & Tobacco Budworm

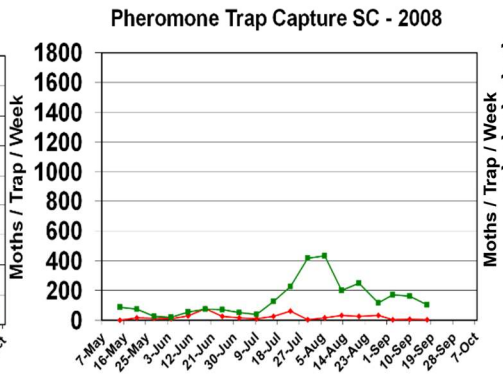
Captures of bollworm (BW) and tobacco budworm (TBW) moths in pheromone traps at EREC this season are shown below, as are the captures from 2007-2020 for reference. Tobacco budworm continues to be important for our soybean acres and for any acres of non-Bt cotton. I provide these data as a measure of moth presence and activity in our local area near my research plots. The numbers are not necessarily representative of the species throughout the state but are useful for general trends.

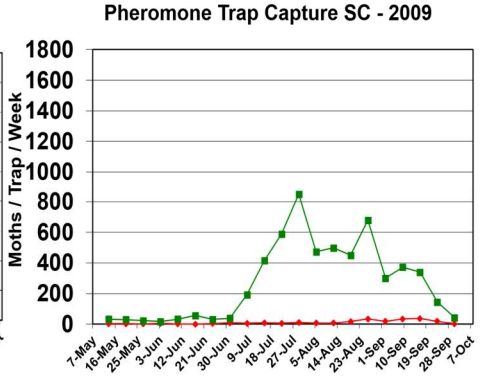




Trap data from 2007-2020 are shown below for reference to other years of trapping data from EREC:







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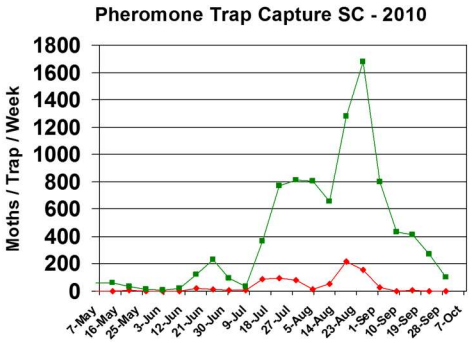

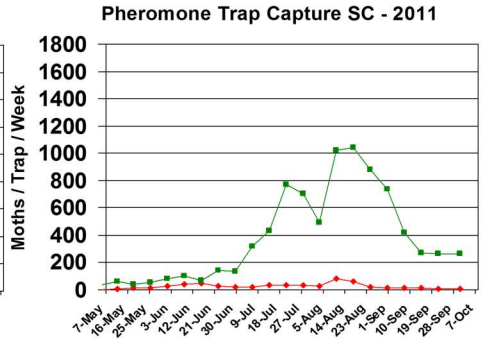

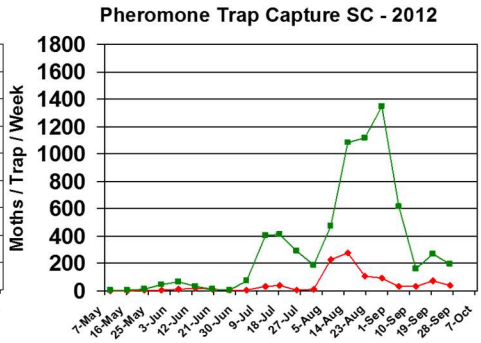

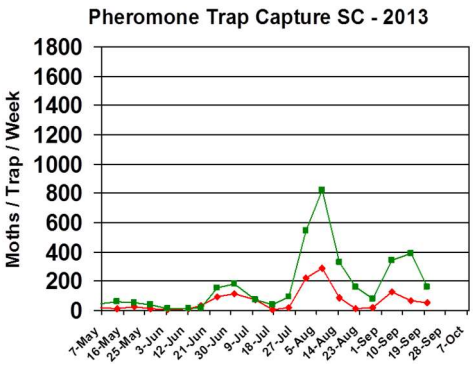

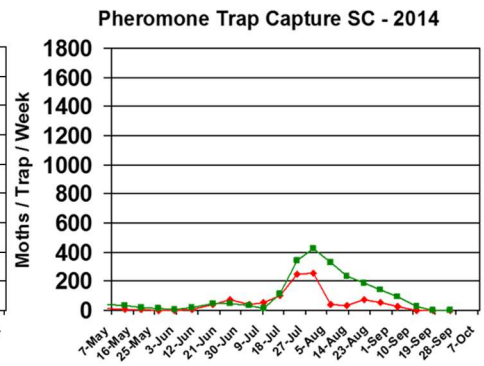

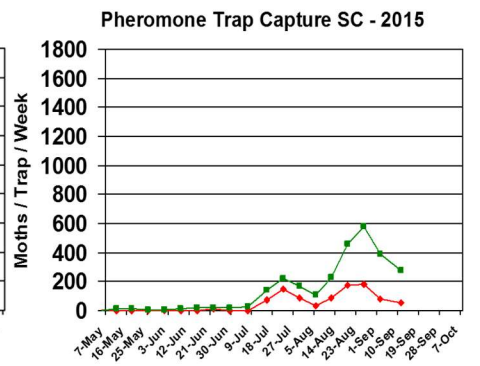

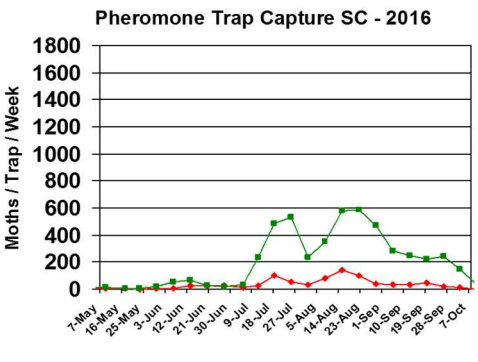

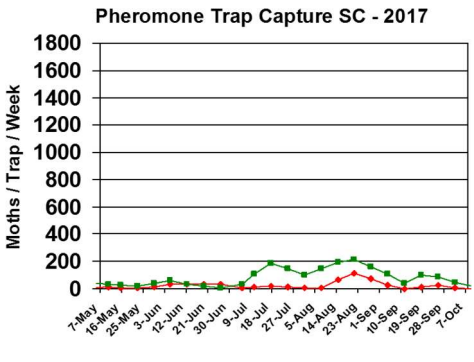

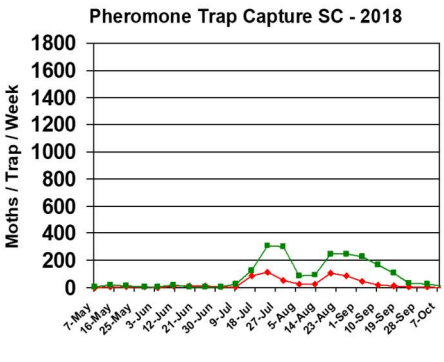

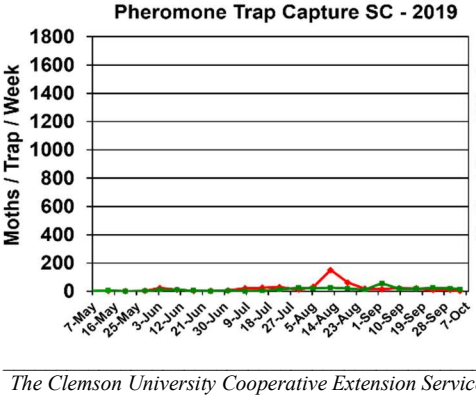

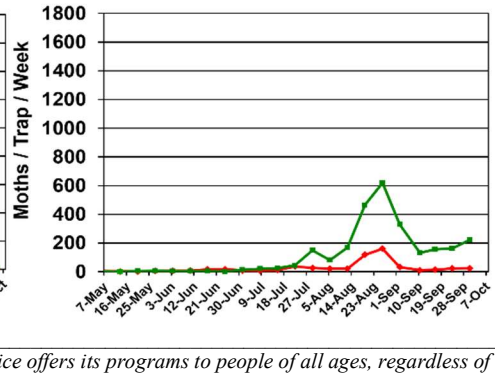

Pest Management Handbook – 2022

Insect control recommendations are available online in the 2022 South Carolina Pest Management Handbook at:
https://www.clemson.edu/extension/agronomy/pestmanagment2022/2022pmhmaster.pdf

South Carolina Crops Blog

The SC Crops Blog contains content about production of major row crops at the following link, if you want more information: https://blogs.clemson.edu/sccrops/
Archived issues of the Cotton/Soybean Insect Newsletter can be viewed at a convenient link on the SCCrops page. Contact **Dr. Michael Plumblee**, if you have any questions about the blog.

Free Mobile Apps: "Calibrate My Sprayer" and "Mix My Sprayer"

Download our free mobile apps called "Calibrate My Sprayer" and "Mix My Sprayer" that help check for proper calibration of spraying equipment and help you with mixing user-defined pesticides, respectively, in custom units (available in both iOS and Android formats):
http://www.clemson.edu/extension/mobile-apps/

Need More Information?

For more Clemson University Extension information: http://www.clemson.edu/extension/

For historical cotton/soybean insect newsletters:
https://www.clemson.edu//extension/agronomy/cotton1/newsletters.html

Sincerely,

Jeremy K. Greene, Ph.D.
Professor of Entomology

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